UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/016,002	01/30/1998	DAVID S. LAMPERT	7117-89	6408

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EXAMINER
COLBERT, ELLA

ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/016,002	LAMPERT ET AL.
	Examiner	Art Unit	
	Ella Colbert	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 September 2005</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-10,13-15,17 and 19-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) <u>2-10,17,23 and 26</u> is/are allowed.

6) ☒ Claim(s) <u>13-15,19,20,24,25 and 27-29</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 2-10, 13-15, 17, 19, 20, and 23-29 are pending. Claims 23-26 have been

amended in this communication filed 09/26/05 entered as Response After Non-Final

Action.

2.   The 35 USC 101 rejection for claims 23-26 and claims 2-10, 13-15, and 17 that

depend there from has been overcome by Applicants' amendment to claims 23-26 and

claims 2-10, 13-15, and 17 that depend there from and is herein withdrawn.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over (US

6,282,489) Bellesfield et al, hereafter Bellesfield in view of US 5,754,846) Janse et al,

hereafter Janse.

The applied reference has a common inventor and assignee with the instant

application. Based upon the earlier effective U.S. filing date of the reference, it

constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e)

might be overcome either by a showing under 37 CFR 1.132 that any invention

disclosed but not claimed in the reference was derived from the inventor of this

application and is thus not the invention "by another," or by an appropriate showing

under 37 CFR 1.131.

With respect to claim 24, Bellesfield teaches, A computer-implemented method of using a geographic database comprising the steps of: accepting specification of a search area in a geographic region represented by the geographic database (col. 3, line 52-col. 4, line 10); identifying a parcel of data in the geographic database, wherein the parcel contains data entities that represent geographic features encompassed within a first rectangular area located within the geographic region, wherein the first rectangular area intersects said search area (col. 5, lines 10-36); and whereby the data entities that represent the geographic features located within the search area are determined (col. 7, lines 13-40).

Bellesfield failed to teach, wherein an improvement comprises: using a first index associated with the parcel to identify which of a plurality of rectangular sub-areas into which the first rectangular area is divided intersect the search area; and using a second index associated with the parcel to identify the data entities contained in the parcel that intersect each of the plurality of rectangular sub-areas identified as intersecting the search area. Janse teaches, using a first index associated with the parcel to identify which of a plurality of rectangular sub-areas into which the first rectangular area is divided intersect the search area (col. 4, lines 53-67); and using a second index associated with the parcel to identify the data entities contained in the parcel that intersect each of the plurality of rectangular sub-areas identified as intersecting the search area (col. 6, lines 57-67 and col. 8, lines 52-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a first index associated with the parcel to identify which of a plurality of rectangular sub-areas

into which the first rectangular area is divided intersect the search area; and using a

second index associated with the parcel to identify the data entities contained in the

parcel that intersect each of the plurality of rectangular sub-areas identified as

intersecting the search area and to incorporate in Bellesfield because such an

incorporation would allow Bellesfield to have the capability to have the parcels divided

and one or more parcels at the time with each parcel corresponding to a rectangular

section of a road network with a pointer (index) to the cell in the neighboring section.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over (US

5,754,846) Janse et al, hereafter Janse and (US 5,694,534) White, Jr. et al, hereafter

White, Jr. in view of (US 6,282,498) Bellesfield et al, hereafter Bellesfield.

With respect to claim 25, Janse et al teaches, A computer-implemented method

of using a geographic database to identify geographic features located within a search

area, wherein the geographic database contains data entities that represent geographic

features located in a geographic region, and wherein the geographic database is

organized into parcels, each of which contains a subset of all the data entities in the

geographic database, and wherein the subset of data entities in each parcel represent

the geographic features encompassed within a separate respective one of a plurality of

rectangular areas into which the geographic region is divided, wherein the method

comprises the steps of:

(a) identifying each parcel that is associated with a rectangular area that

intersects the search area (col. 4, lines 59-67);

Janse failed to teach, wherein an improvement comprises: (b) for each parcel

identified in step (a), using a first index associated with the parcel to identify each

rectangular sub-area formed of the rectangular area associated with the parcel that

intersects the search area. White, Jr. teaches, b) for each parcel identified in step (a),

using a first index associated with the parcel to identify each rectangular sub-area

formed of the rectangular area associated with the parcel that intersects the search area

(col. 13, line 54-col. 14, line 64). It would have been obvious to one having ordinary skill

in the art at the time the invention was made to have for each parcel identified in step

(a), using a first index associated with the parcel to identify each rectangular sub-area

formed of the rectangular area associated with the parcel that intersects the search area

and to incorporate in Janse because such and incorporation would allow Janse to have

useful pointers as a means to retrieve detailed data or other associated data such as

street names.

Janse and White, Jr. failed to teach, (c) for each parcel identified in step (a),

using a second index associated with the parcel to identify each of the data entities

contained therein that represents a geographic feature that intersects each of the sub-

areas identified in step (b). Bellesfield teaches, c) for each parcel identified in step (a),

using a second index associated with the parcel to identify each of the data entities

contained therein that represents a geographic feature that intersects each of the sub-

areas identified in step (b) (col. 7, lines 13-40). It would have been obvious to one

having ordinary skill in the art at the time the invention was made to have for each

parcel identified in step (a), to use a second index associated with the parcel to identify

each of the data entities contained therein that represents a geographic feature that

intersects each of the sub-areas identified in step (b) and to incorporate in Janse

because such an incorporation would allow Janse to have a routing component that

searches for the departure point in the "place name" of the routing places data.

7.   Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

(US 5,754,846) Janse et al, hereafter Janse and (US 5,694,534) White, Jr. et al,

hereafter White, Jr. in view of (US 6,282,498) Bellesfield et al, hereafter Bellesfield and

further in view of (US 5,968,109) Israni et al, hereafter Israni.

With respect to claim 13, Janse, White, Jr. and Bellesfield failed to teach,

wherein said data entities represent segments of roads. Israni teaches, wherein said

data entities represent segments of roads (col. 6, lines 36-63). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to

have the data entities represent segments of roads and to incorporate in Janse because

such an incorporation would allow Janse to have segments that represent a section of

navigable road.

With respect to claim 14, Janse, White, Jr. and Bellesfield failed to teach wherein

the first index is a kd-tree index. Israni teaches, wherein the first index is a kd-tree

index (col. 2, lines 59-65). It would have been obvious to one having ordinary skill in the

art at the time the invention was made to have the first index as a kd-tree index and to

incorporate in Janse because such an incorporation would allow Janse to reduce the

amount of data needed to represent spatial parcel boundaries in a global kd-tree index.

With respect to claim 15, Janse and White, Jr. failed to teach wherein the second

index is a bitmap. Bellesfield teaches wherein the second index is a bitmap (col. 3, line

52-col. 4, line 25). It would have been obvious to one having ordinary skill in the art at

the time the invention was made to have the second index to be a bitmap and to

incorporate tin Janse because such an incorporation would allow Janse to have bit-

mapped images for both high and low level geographic regions.

Claim Rejections - 35 USC § 102

8.   (e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application by
another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the
invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9.   Claims 19, 20, and 27-29 are rejected under 35 U.S.C. 102(e) as being

anticipated by (US 5,968,109) Israni et al, hereafter Israni.

With respect to claim 19, Israni teaches, wherein the sub-areas associated with

each parcel are spatially organized (col. 11, lines 23-46)

With respect to claim 20, Israni teaches, wherein the data entities associated with each rectangular sub-area are approximately similar in number to each other (col. 12, lines 49-67).

With respect to claim 27, Israni teaches, (a) data entities each of which represents a geographic feature in a geographic region (col. 5, lines 29-45 and line 64 – col. 6, line 67), wherein the data entities are separated into a plurality of parcels (col. 7, lines 61-col. 8, line 50), wherein each parcel contains a subset of the data entities (col. 8, line 51-col. 9, line15), wherein the subset of data entities in each parcel represents those geographic features ... wherein an improvement comprises: (col. 10, lines 11 –col. 11, line 46), (b) a plurality of indexes, each of which is associated with a separate one of the plurality of parcels and where the index relates each of the data entities in the subset of data entities ... (col. 10, lines 11 –col. 11, line 46), and the geographic database is stored on a computer readable storage medium (col. 19, lines 23 –col. 20, line 64).

With respect to claim 28, Israni teaches, wherein said data entities represent segments of roads (col. 6, lines 36-63).

With respect to claim 29, Israni teaches, a plurality of parcels, each of which contains a separate portion of the data records, ... (col. 21, line 45 –col. 22, line 18 and col. 24, line 23 –col. 25, line 61), wherein an improvement comprises: a plurality of first indexes each of which is associated with a plurality of parcels, ... (col. 19, line 23-col. 20, line 64), and the computer readable data structure means identifies which of the data records represent segments of roads located in any specified sub-area of any specified area (col. 28, lines 43 –col. 29, line 11).

Allowable Subject Matter

10.   Independent claims 23 and 26 are allowed.

The following is an examiner's statement of reasons for allowance: Applicants' wherein

the subset of the plurality of data entities contained in each parcel represents the

geographic features located in a separate one of a plurality of areas into which the

geographic region is divided in claim 23 and "wherein the plurality of groupings are

based upon a division of the area associated with the parcel into a plurality of smaller

sub-areas in conjunction in claim 26 with the other claim limitations was not disclosed

by, would not have been obvious over, nor fairly suggested by the prior art of record.

11.   The dependent claims 2-10 and 17 being further limiting to the independent

claims, definite and fully enabled by the Specification are also allowable.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Inquiries

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ella Colbert whose telephone number is 571-272-6741.

The examiner can normally be reached on Tuesday-Thursday, 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vincent Millin can be reached on 571-272-6747. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

E. Colbert
Primary Examiner
December 8, 2005